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THE PLANT DISEASE REPORTER

Continuation of

THE PLANT DISEASE BULLETIN

Issued By

THE PLANT DISEASE SURVEY

Volume VII Number 9

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BUREAU OF PLANT INDUSTRY

UNITED STATES DEPARTMENT OF AGRICULTURE

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Vol. VII October 15, 1923 Number 9

ANNUAL REPORT ON CEREAL DISEASES DUE NOVEMBER 1

The request for the annual cereal disease report has been sent out to chief collaborators during the past week. As usual, collaborators have been requested to prepare their report on individual forms with maps, and to submit crop loss estimates. In addition, they are urged to send in specimens, especially of the less common or new diseases, to substantiate reports. It is important that specimens be secured to verify reports when questions arise concerning them.

Assistant collaborators and other readers of this Reporter are asked to help us in this work by furnishing collaborators with whatever information and plant disease material they may have, or by sending them direct to the Washington office.

EAR ROTS OF CORN NOT UNUSUALLY ABUNDANT IN CORN BELT

Comparatively dry weather in the corn belt during August and September has tended to keep down the amount of ear rot in corn caused by Diplodia zeae and Fusarium sp. However, in some of the southern states, where the rainfall was plentiful during August, ear rots have been destructive, and in some of the northern states early frost has killed the plants before the ears were mature so that considerable loss from rot is expected to occur to the immature ears. The following are some of the recent state reports:

Connecticut: Have not received data on these troubles. Probably average amount. (Clinton, Oct. 1)

New York: Present in small quantities in many of the field corn plantings which were visited between September 8 and 10 in nine counties of western New York. (Kirby, Oct. 1)

Florida: Gadsden County - Practically every farmer is complaining of damage from ear rot. (W. B. Tisdale, Sept. 10)

Alabama: Generally present but difficult to estimate loss. Probably 5-8%. (Miles, Sept. 1)

Louisiana: Very common as usual with a comparatively heavy loss in places. Very wet season has been very favorable for the development of the rot. (Edgerton, Sept. 1)

Kentucky: Much less destructive this year than last in Fayette County. No information for rest of state. (Valleau, Oct. 1)

Ohio: Weather conditions have not been favorable for infection during August and September. Apparently it will be possible to select a very high grade of seed corn free from disease this season. (Thomas, Oct. 1)

Wisconsin: More than usual. The frosts of September 13 and 14 killed much corn in premature condition, as a result ear rot fungi are developing rapidly. (Vaughan, Oct. 1)

Minnesota: Found in several fields in Martin and Ramsey Counties. (Sec. of Plant Pathology, Oct. 1)

Kansas: The stalk and ear rots are present in all fields. The months of July and August were very favorable for the corn crop in most of the corn belt and as a result less injury resulted from these troubles than would have been ordinarily expected. The causes of these troubles seem to be complex physiological and fungous factors. (Melchers, Aug. 15)

CORN RUST REPORTED

Puccinia sorghi has been reported recently in varying amounts from New York, Illinois, Wisconsin, Minnesota, and Kansas. It has caused no appreciable injury, however, in these states.

HEAD SMUT OF CORN OCCURS AGAIN IN WASHINGTON

B. F. Dana, of the Washington Experiment Station, has reported that the head smut, Sorosporium reilianum, is present in considerable amounts in field and garden corn in the vicinity of Pullman this year.

BROWN SPOT OF CORN PREVALENT IN ILLINOIS

Under date of October 1, L. R. Tehon reports that the brown spot of corn caused by Physoderma zeae-maydis is very prevalent this year in Illinois. Infections on 100% of the stalks were reported in fields of Boone County White Corn.

TWO MORE STATES REPORT PASMO DISEASE OF FIAX

On October 2, specimens of Pasmo disease of flax were received from A. W. Henry, who had collected them at Clear Springs, Minnesota. He stated that 90% of the plants were affected in one plot.

The Cereal Courier of September 20 reports (page 247) that this disease was found by Mr. Arthur C. Dillman on the Belle Fourche Experiment Farm at Newell, South Dakota, occurring in a late sown plat of N. D. R. 114 flax.

In North Dakota, according to Brentzel, Pasmo disease was common in the eastern half of the state, but has not yet been reported from the western part. Infection in the Red River Valley ranged from a trace to 100%. He states that varieties related to the Argentine flax were especially susceptible.

FIAX WILT REPORTS

Minnesota: About as abundant as in previous years. Destructive only on susceptible varieties, especially when planted late. (Sec. of Plant Pathology, Sept. 1)

Iowa: Only two fields found in northern Iowa. (Melhus, Sept. 1)

North Dakota: Due to warm, dry weather in the first two weeks of June wilt was more severe than in average years. The flax acreage was greatly increased this year. The demand for resistant seed exceeded the supply. Susceptible seed was sown on many wilt-infested fields. The loss ranged from a trace to 100 per cent of the crop. (Brentzel, Oct. 1)

South Dakota: Abundant in many fields, doing as much as 80 or 90% damage. Loss in state 3%. Much flax has apparently been sold as wilt-resistant which is not. (Evans, Aug. 1)

REPORTS ON SORGHUM DISEASES FROM KANSAS

Under date of October 1, L. E. Melchers reports the following diseases of sorghum:

Covered smut caused by Sphacelotheca sorghi:

Not any more common than usual. Red Amber generally shows less severe infection than kafirs and some of the other sorgos.

Head smut caused by Sorosporium reilianum:

No reports have come to this station. Generally it has been found at Hays, Kansas, (Branch Station), attacking Red Amber which seems to be peculiarly susceptible.

Stalk rot, cause unknown:

For a number of seasons a root and stalk decay has been noticed in fields. The cause is unknown. The trouble is not common, but has been most noticeable where pure lines of sorghum have been grown. An apparently red stalked susceptible strain has been recently observed to have this trouble.

REPORTS ON PEAR SCAB

Connecticut: Apparently less conspicuous than usual as only one report. (Clinton, Sept. 15)

New York: Reported from twenty-four counties. Quite common and destructive. Reported on Bartlett and Flemish Beauty from Genesee County. Locally prevalent and slight damage from Wyoming County. In Genesee County 50% of the fruit in a Bartlett orchard was affected with scab. The prevalence of the disease is attributed to the prolonged early seasonal rains at and prior to blossoming and the failure to apply sprays or dusts at the proper time. (Guba, Sept. 15)

Ohio: Numerous specimens have been received through the latter part of the season. Apparently the disease is worse than normal. (Thomas, Sept. 15)

Washington: Prevalent in western Washington. (Dana, Oct. 1)

ONION DISEASES

Wisconsin: Smudge (Colletotrichum circinans) - Of no importance as the commercial crop of Wisconsin is largely the Red Globe variety.

Bulb rot (Fusarium sp.) - Less than last year. Not destructive.

Smut (Urocystis cepulae) - Less than usual, owing to the general practice of formaldehyde treatment on soil known to be infected. (Vaughan, Sept. 15)

Minnesota: Leaf mold (Macrosporium parasiticum) - Abundant in one field near Duluth. Injury not great. (Sec. Plant Pathology, Sept. 15)

Ohio: Downy mildew (Peronospora schleideni) - Found only in certain local sections where drainage had not been thoroughly accomplished.

Soft rot (Bacillus carotovorus) - Less conspicuous than normally. Dry weather conditions are thought to have retarded the spread of this organism.

Neck rot (Botrytis allii) - Not general. Loss slight this year. (R. C. Thomas, Sept. 15)

FROG-EYE LEAFSPOT OF TOBACCO REPORTED FROM KENTUCKY

Valleau and Kinney make the following report concerning frog-eye (Cercospora sp.) of tobacco (August 15):

> "Widely distributed in the Burley section. The injury is much more extensive than I have seen before. The season has been wet. The spots were quite common in seed beds and are in most fields examined. Other years it has not always been easy to obtain even specimens. Only a slight and occasional infection in dark tobacco although burley in neighboring fields may be badly diseased."

SUSCEPTIBILITY OF ROSE VARIETIES TO BLACK SPOT

Has anyone any observations to report on this subject this year? Here is a starter. Let's have some more.

Kentucky: The following varieties have been free from black spot during the summer and fall in my garden:

Madame Butterfly
Climbing American Beauty
Dr. Van Fleet
Christine Wright

The following varieties have been nearly defoliated:

Los Angeles
Tausendschoen
J. B. Clark
Wm. R. Smith
Gruss an Teplitz

(Valleau, Oct. 1)

LOOK FOR PERITHECIA OF RED CLOVER POWDERY MILDEW

Now is the time to look for the perithecia of the powdery mildew that has been so common on our red clover during the past three years. Perithecia are common on the powdery mildew that occurs on clovers in the West, but, apparently, no one has found the perfect stage of this eastern fungus.

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